

ABSTRACT

SPLIT WAVE METHOD AND APPARATUS FOR TRANSMITTING DATA IN LONG-HAUL OPTICAL FIBER SYSTEMS

5 A method is provided for transmitting optical signals in an optical
communication system. An optical input is received that has a first data rate
and is split into a plurality of sub-wavelengths. The plurality of sub-
wavelengths are spaced sufficiently close in wavelength to provide a
spectral efficiency of all the sub-wavelengths that is close to or greater than
10 a spectral efficiency of the optical input. The plurality of sub-wavelengths
are then combined.